unrecognized that a response was due until the Examiner phoned Lisa Kole, an Attorney for Applicant, on April 9, 2002, thereby informing Applicants that the case had gone abandoned. This submission, together with the enclosed Petition to Revive and the appropriate fee, are intended to be fully responsive to the Notice and to reinstate the application. Also enclosed is a Power of Attorney appointing attorneys at Baker Botts, L.L.P. as Attorneys for Applicants. Accordingly, please consider the following amendments and remarks and enter the enclosed Sequence Listing into the record.

IN THE SPECIFICATION:

Please amend the specification by replacing the paragraphs indicated below with replacement paragraphs, as follows:

Please replace paragraph 1 on page 3 at lines 3-9 with the following replacement paragraph:

BB 1

Figure 1. Nucleotide (SEQ ID NO:1) and predicted amino acid (SEQ ID NO:2) sequence of the rat PSGen 13 gene (designated PSGen 13). The starting ATG of the open reading frame and the stop codon are bold faced and the poly(A) signal is underlined.

Please replace paragraph 2 on page 3 at lines 11-17 with the following replacement paragraph:

BB 2

Figure 2. Nucleotide (SEQ ID NO:3) and predicted amino acid (SEQ ID NO:4) sequence of the human PSGen 13 gene (designated HuPSGen 13). The starting ATG of the open reading frame and the stop codon are bold faced and the poly(A) signal is underlined.

Please replace paragraph 3 on page 3 at lines 19-22 with the following replacement paragraph:

Figure 3. Nucleotide sequence comparison between the rat PSGen 13 (SEQ ID NO:1) and HuPSGen 13 (SEQ ID NO:3) cDNAs. The start and stop codons of the rat PSGen 13 and HuPSGen 13 genes are underlined.

BB3

Please replace paragraph 4 on page 3 at lines 24-27 with the following replacement paragraph:

Figure 4. Amino acid sequence comparison between the rat PSGen 13 (SEQ ID NO:2) and HuPSGen 13 (SEQ ID NO:4) encoded proteins. Conserved substitutions in the rat PSGen 13 and HuPSGen 13 proteins are underlined.

BB4

Please replace the paragraph bridging pages 3 and 4 at page 3 line 29 through page 4 line 9 with the following replacement paragraph:

Figure 5. Differential expression of PSGen 13 identified by RSDD and reverse Northern blotting in a large panel of rodent cells displaying differences in transformation progression. A Northern blot of cells displaying various stages of transformation progression was probed with a radiolabeled [^{32}P] rat PSGen 13 cDNA initially identified by RSDD and reverse Northern blotting (6). The cell types used include unprogressed E11 (-), CREF X E11-NMT F1 (-) and CREF X E11-NMT F2 (-) somatic cell hybrids, E11 X E11-NMT A6 (-) somatic cell hybrid, E11 X E11-NMT 3b (-) somatic cell hybrid, and E11-NMT AZA B1 (-) and E11-NMT AZA C1 (-) 5-azacytidine-treated E11-NMT clones; and progressed E11-NMT (+), CREF X E11-NMT R1 (+) and CREF X E11-NMT R2 (+) somatic cell hybrids,

BB5

E11 X E11-NMT A6TD (+) nude mouse tumor derived somatic cell hybrid, E11 X E11-NMT IIa (+), E11-Ras R12 (+) and E11-HPV E6/E7 (+) and an E11 clone transformed by the E6 and E7 region of HPV-18. Equal loading of RNAs is demonstrated by ethidium bromide (EtBr) staining. Data from ref. 6.

Please replace the second full paragraph on page 6 at lines 12-28 with the following replacement paragraph:

The invention provides for an isolated nucleic acid encoding a Progression Suppressed Gene 13 (PSGen 13) protein. In one embodiment of the invention, the PSGen 13 protein is a human protein, a rat protein, a primate protein, a mouse protein, or a bovine protein. In another embodiment of the invention, the nucleic acid comprises the polynucleotide sequence shown in SEQ ID NO:1. In another embodiment of the invention, the nucleic acid comprises the polynucleotide sequence in SEQ ID NO:3. In another embodiment of the invention, the nucleic acid consists essentially of the polynucleotide sequence shown in SEQ ID NO:1. In another embodiment of the invention, the nucleic acid consists essentially of the polynucleotide sequence shown in SEQ ID NO:3. In another embodiment of the invention, the nucleic acid consists of the polynucleotide sequence shown in SEQ ID NO:1. In another embodiment of the invention, the nucleic acid consists of the polynucleotide sequence shown in SEQ ID NO:3.

Please replace the second full paragraph on page 8 at lines 8-16 with the following replacement paragraph:

The invention provides for an isolated nucleic acid encoding a Progression Suppressed Gene

13 (PSGen 13) protein. In one embodiment of the invention, the protein is a human protein, a rat protein, a primate protein, a mouse protein, or a bovine protein. In another embodiment of the invention, the protein has a polypeptide sequence which is encoded by the polynucleotide sequence shown in SEQ ID NO:1. In another embodiment of the invention, the protein has a polypeptide sequence which is encoded by the polynucleotide sequence shown in SEQ ID NO:3.

Please delete the first and second full paragraphs, lines 8-22 and 24-35, respectively, from page 10.

Please replace the first full paragraph on page 33, line 30 bridging to page 34, line 10, with the following replacement paragraph:

Construction of PSGen 13-expressing E11-NMT clones. E11-NMT and DU-145 cells were transfected with a pcDNA3.1(+) expression vector (containing a neomycin resistance gene) lacking or having the complete PSGen 13 gene as previously described (11). Briefly, $1x10^5$ cells were seeded in 10-cm tissue culture plates. Six hours later, 10 μg of purified pcDNA3.1(+) vector or a rat PSGen 13/pcDNA3.1(+) construct was incubated with 30 μl of Lipofectamine (Gibco BRL) and this mixture was added to the cells for 8 hr. The next day, the media was changed, with the addition of 500 μg/ml of G418. Thereafter, the media was changed 2X per week for three weeks. G418-resistant colonies were isolated using cloning cylinders and maintained as independent cell lines, referred to as NMT-PSG13 clones (cl 3, 5, 6, 7, 8, 9, 10, 11 and 12) and DU-PSG13 clones (cl 11, 12, 13, 14, 15 and 17), in complete media containing 100 μg/ml of G418. Additionally, NMT-vector and DU-145-Vec clones

B B8 were isolated and maintained as independent cell lines in complete media containing 100 μg/ml of G418.

Please replace the first full paragraph on page 35 at lines 10-24 with the following replacement paragraph:

Cloning a full length rat PSGen 13 and HuPSGen 13 cDNA. An original rat PSGen 13 EST was identified using RSDD and reverse Northern hybridization as a gene displaying elevated expression in E11 versus E11-NMT cells (6). A full length open reading frame (ORF) of rat PSGen 13 was cloned using the complete open reading frame (C-ORF) approach with specific gene primers (20) and electronic data mining based on the EST sequence. Primers used for C-ORF were PSGen13-R2 (5'-TCG CTT CTC ACT TTG ACG GAG TGT CAA G-3') (SEQ ID NO:5) and PSGen13-R2 Nested (5'-TGT CAA GTG TGG CAG AGA CTA AGA ATG G-3') (SEQ ID NO:6). In addition, full length rat PSGen 13 and HuPSGen 13 cDNA clones were identified by sequence comparison of the rat PSGen 13 EST with GenBank by BLAST. Selected clones (ATCC #200577 from rat PSGen 13 and ATCC #2525262 for HuPSGen 13) were procured (Research Genetics) and sequenced.

BB9

Please replace the paragraph bridging pages 35 and 36 at page 35 line 28 through page 36 line 7 with the following replacement paragraph:

Sequence Informatics of PSGen 13. The cloned full length rat PSGen 13 cDNA consists of 780 bp excluding the poly(A) tail. A poly(A) signal (AATAAA) is located at position 763 (Fig. 1) (SEQ ID NO:1). The ORF starts at the first ATG at 170 bp, which is preceded by an in-frame stop codon at 86 bp, and spans to 415 bp. Rat PSGen 13 encodes a protein with

BB10

predicted 81 amino acids of calculated molecular weight of 9 kDa with a pI of 5.52 (Fig. 1). Protein sequence analysis did not indicate hydrophobic patches for membrane spanning regions of signal peptide sequences characteristic of secretory proteins. Motif and pattern analysis also failed to identify sequence homologies with previously reported genes, information that is useful in providing potential insights into the biological function and or mode of action of rat PSGen13. Based on this observation, rat PSGen13 appears to encode a novel class of proteins.

Please replace the first full paragraph on page 36 at lines 9-31 with the following replacement paragraph:

A human homologue of Rat PSGen 13 (HuPSGen 13) was electronically cloned by analyzing sequences reported in the GenBank data base (Fig. 2) (SEQ ID NO:3). HuPSGen 13 is 75% identical to rat PSGen 13 at the nucleotide level, but 94% identical to Rat PSGen 13 on a protein level (76/81). (Figs. 3 and 4). Of the 5 residues that are distinct in HuPSGen 13, three of them (D at 4, K at 38 and I at 77) are conserved substitutions of rat PSGen 13 (E at 4, R at 38 and V at 77, respectively), which suggests strong conservation in functionality. Furthermore, sequence identity of HuPSGen 13 with rat PSGen 13 protein is 87% at the nucleotide level. Both 5' and 3' untranslated regions display 68.7% and 68.3% identity, respectively, and are more diverse between rat PSGen 13 and HuPSGen 13 than the ORF, which is not uncommon between interspecies homologues. Considering the degree of conservation in the ORF and resulting protein sequence, HuPSGen 13 is an orthologue of rat PSGen 13. The cloned HuPSGen 13 cDNA consists of 835 bp excluding the poly(A) tail and the canonical poly(A) signal was observed at 814 bp. Although an in-frame stop codon was